

REMARKS

Claims 1, 2, 10, 20, 21, 24, 25 and 26 are in the application. Support for the claims may be found at page 3, line 15 to page 6, line 20.

In the final rejection, and as advised in the Advisory Action of October 27, 2003, prior claims 1-23 were rejected under 35 USC 102(e) over Heideran *et al.* (Heideran). It is requested that Heideran not be applied against the present claims for the following reasons. Heideran does not disclose the culturing of the matrix with chondrocytes prior to implantation into an *in vivo* site. Heideran shows a culturing of the matrices with osteoblastic cells or tumor cells prior to implantation. See column 5, lines 25 through 32. Heideran is not directed to monitoring what happens in a matrix containing non-tumorogenic cells, so the matrices containing the osteoblastic cells are controls to monitor the activity of the growth factors. See column 8, lines 41-42. The main focus of Heideran is the antiproliferative activity of the collagen-polysaccharide matrix and differentiation factor on bone tumors. The matrices are cultured only with osteoblastic cells or tumor cells. There is no culturing of the matrixes with chondrocytes as in the present application and is presently claimed. Therefore, it is submitted that Heideran does not anticipate the present claims.

Prior claims 1-4 and 12-15 were rejected under 35 USC 102(e) as anticipated by Hattersley *et al.* (Hattersley). It is requested that Hattersley not be applied to the present claims for the following reasons. Hattersley is directed to a method of inducing articular cartilage tissue formation and maintenance by applying a composition of two components, BMP-13, and an osteogenic protein selected from the group consisting of BMP-2, BMP-4, BMP-7, and BMP-9. The carrier for the active ingredients in the composition of Hattersley may include a matrix. However, nowhere is it disclosed that the matrix is first cultured *in vitro* with chondrocytes prior to implantation. Therefore, in neither of these references is the method disclosed of culturing chondrocytes in a collagen matrix with an effective amount of BMP-4 or BMP-4 and GDF-5. Furthermore there is no disclosure of implanting such a matrix subsequent to the culturing step into a site *in vivo* to induce or enhance chondrogenesis.

Accordingly, it is respectfully requested that the claims are in condition for allowance.

Respectfully submitted,

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